

## 11.0 Supporting Information

*Instructions to Vendors: Commonwealth expects that Vendor will provide additional information to further clarify its proposal and elucidate the benefits to Commonwealth in selecting Service Vendor as its outsourcing service provider.*

### 11.1 Benefits

#### 11.1.1 General Vendor benefits to Commonwealth

##### *Who Benefits and Why*

The Commonwealth Partners are proud to provide VITA with a proposal that offers benefits to the following distinct entities:

- The Employees of VITA
- The Communities
- The Citizens of Virginia
- The State Agencies
- The Minority Businesses (SWAM)
- The State Government

This section will describe in detail how and why each of these entities will benefit if our solution is selected. In addition, we will describe the community benefits, including the economic impact the program will have on the local community, the number of jobs generated for Virginia residents, and the level of pay and benefits associated with these jobs. We will reiterate our training opportunities and the number and proposed value of opportunities generated for Virginia subcontractors.

The Commonwealth Partners believe it is important to first understand VITA's value proposition, the Commonwealth Partners value proposition, and to further outline the opportunities to the Commonwealth.

##### **VITA's Value Proposition**

For many years, Virginia, as most states, has been a government divided by the "have and have nots." Traditionally, a few large agencies benefit from the resources available to them, in the form of budget, federal grants, and resources. In an effort to better position the Commonwealth as a whole, VITA was created. Since its inception, VITA has been asked about the value of its effort and to identify who will truly benefit from all of this change. VITA was created to benefit the collective whole of the Commonwealth, without impacting the ability of the individual agencies to deliver services to the constituents of the Commonwealth. To date, VITA has focused entirely on the integration of agencies into this new structure. As a result of this effort, not only has the Commonwealth seen the benefit of savings derived by leveraging the combined assets of the agencies, but a number of small agencies have benefited from the deployment of technology that was previously unaffordable to them.

During the transformation phase, VITA will start to redefine how it does business. Transformation means re-engineering the technology infrastructure and business processes with an emphasis on citizens' demand for easier access to and better services from the Commonwealth. The only path to success for VITA is an enterprise-wide focus to achieve the types of economies of scale that will be necessary to realize the vision of enhanced citizen services. This enterprise-wide focus includes ensuring that VITA has a secure environment to:

- Effectively protect citizen information;
- Dramatically improve citizen use and ease of access to government services; and
- Develop a business model of continuous improvement for efficient and effective deployment of innovative technology solutions.

This is where the Commonwealth Partners will help VITA harness and realize that value.

### **Commonwealth Partners' Value Proposition**

The Commonwealth Partners are proposing to leverage the public-private partnership to improve Virginia's IT services. The value we bring is a true partnership: we are offering to share the assets, strengths, and capabilities of a powerful consortium of companies to assist VITA with its vision of transformation. Our relationship will be a venture in which investment, risk, responsibility, and reward are shared between VITA and our team with clearly defined responsibilities. In this model, the responsibilities of government remain the same – to deliver services and products in a manner that serve the public interest. What changes is the delivery mechanism, which is provided by private partners whose core competency is delivering technology services.

Our proposal allows the Commonwealth to focus on managing information while we manage the technology. Together, we can make Virginia's government more efficient, more responsive, and more citizen-centered.

### **The Opportunity Defined**

Over the years, the Commonwealth has grown agency by agency into a highly decentralized government organization. The reasons include the constituencies served, their locations, the diverse nature of the functions performed by the various agencies, and the funding available to the individual agencies at the time. As information technology evolved, the general trend, as in most state governments, was to independently implement IT within each agency. When viewed individually, these decisions seemed very practical. However, the result is a duplication of resources, redundant functions, multiple, disparate technologies, and minimal operational efficiency. VITA was created to help the Commonwealth rectify these issues.

### **Infrastructure and Network**

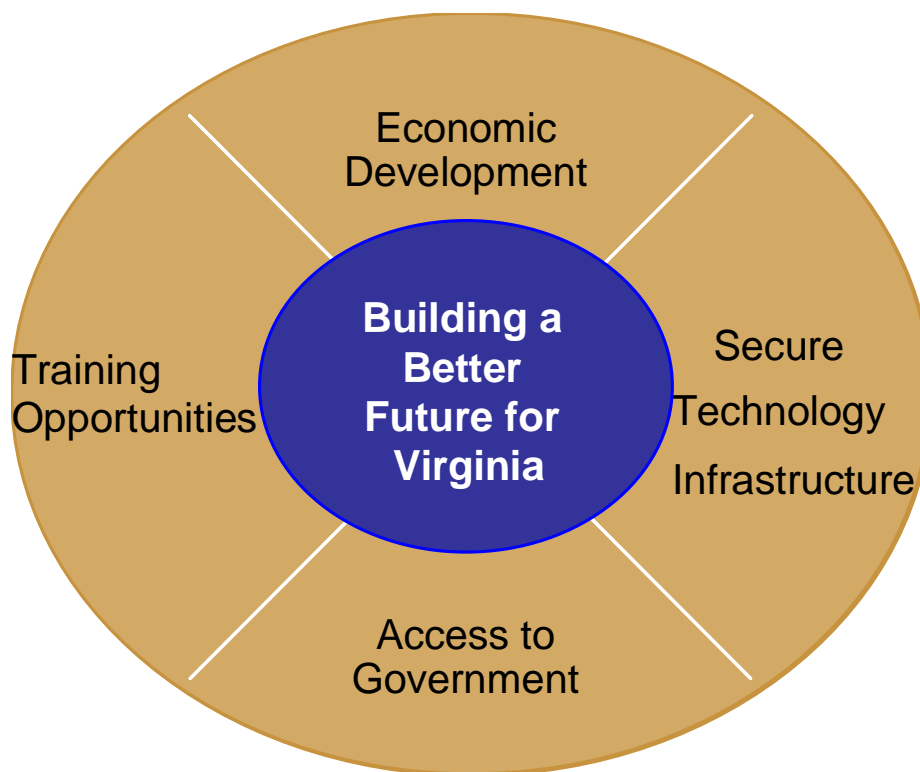
Virginia's citizens and government operations have become increasingly reliant on computer technology. The Internet, as we know it today, did not exist 12 years ago. Since that time email, a basic Internet service has become the single most important means of communication for many organizations. The Internet is rapidly becoming the medium for conducting business and government for many customers and constituents. To meet the needs of Virginia's growing and diverse on-line citizenry and employee population, and to take advantage of these technological advances, a single, secure and redundant infrastructure must be in place for the delivery of these services. The infrastructure must also be engineered and deployed with a view of the total enterprise, as opposed to today's agency-by-agency approach. Our solution provides the Commonwealth with the ability to engineer, implement, and realize the savings that such a network infrastructure can provide.

### **Enterprise Collaboration**

Achieving enterprise collaboration can be problematic. Today, governments face enormous challenges. Without the use of public-private partnerships, many elected officials will be faced with harmful reductions in services and/or significant tax increases. By viewing the needs of the Commonwealth on an enterprise-wide basis, VITA will be in a position to take innovative steps to forge new ways of providing

vital services to the agencies, employees, and citizens of Virginia. Our proposal offers a practical and viable alternative for maintaining high-quality services without increased costs and tax increases. The Commonwealth Partners will assist VITA in providing a vast array of services that provide multiple benefits across a broad constituency.

The challenge is to avoid trying to do too much too quickly. Unfortunately, it is possible that VITA might find itself in a position where the balance shifts too far in the opposite direction. If VITA attempts to create a large central organization made up largely of agency personnel, individual state agencies may demonstrate their power to resist centralization and find ways to work around it. Commonwealth Partners knows that forcing change on people doesn't work; the human side of technology must be addressed. That is why our team is such a strong supporter of Virginia's new strategy for achieving the organization's core mission to leverage the state's IT investments through public-private partnerships. This way, the Commonwealth can provide better opportunities and career growth potential for affected workers and, at the same time, achieve its vision of consolidation, transformation, and cost reduction.



**Figure 11.1 - 1 - Building a Better Future for Virginia**

### **Benefits to the Communities**

Our team is committed to the Commonwealth. We understand that proposed solutions requiring major disruptions to the majority of affected state employees are not acceptable. For that reason we have developed a solution that allows the majority of affected workers the opportunity to continue reporting to work at the same locations they do today. **Redacted**

### **Other Jobs and Business Benefits and Tax Revenues**

A number of short-term jobs will be created during the build-out and enhancement phase **Redacted** In addition to these short-term gains, our proposal provides for many long-term gains.

In both cases, the localities and the Commonwealth were at risk of incurring additional expenses in the form of unemployment benefits paid and administered. In addition numerous opportunities will be provided for Virginia-based Small, Women and Minority-Owned (SWAMs) businesses in the form of subcontracting opportunities. The Commonwealth Partners includes several Virginia-based corporations within the consortium. The total economic benefit, including tax generation and subcontractor opportunities, will depend on the final scope of the program, which will be agreed upon in the Comprehensive Infrastructure Agreement.

### ***Benefits to the Citizens of Virginia***

Our proposal is first and foremost a partnership for the people, creating a higher standard of living for the citizens of the Commonwealth through multiple tangible levels, including:

- Improved and easily accessible government services;
- Greater responsiveness to the needs of the population;
- More highly skilled workforce;
- Continuously improving organization;
- Availability and adoption of better technology solutions; and
- Fostered economic development.

### **Improved Government Services**

The availability and flow of information is essential for government operations. The ability of government agencies to access their critical data systems, obtain information, and respond to citizens' needs is essential to protecting and serving the Commonwealth. A highly secured data center with backup capabilities will assist the Commonwealth in meeting this mission. Potential benefits include:

- Reduced costs of operations, thus increasing funds available to provide additional services to the Commonwealth's constituents.
- Consolidated networks and enterprise-class messaging and email, thereby improving the transparency of technology, improving communications within the government, and enabling the deployment of advanced services to improve the effectiveness of constituent services.
- Standardized platforms and services that allow rapid deployment of business functionality with higher degrees of interoperability – permitting agencies and in-scope providers to offer needed services at a lower cost.
- Ability for 24 x 7 availability of government services through internet access – allowing citizens to obtain services on their schedule

| Business Requirements   | Efficiencies | Improved Services | Citizen Centric |
|---|--------------|-------------------|-----------------|
| Improves customer services  | ✓            | ✓                 | ✓               |
| Simplifies access to government for citizens                                | ✓            | ✓                 | ✓               |
| Leverages technologies to gain cost and share revenue across the enterprise | ✓            | ✓                 | ✓               |

|   |   |   |   |
|---|---|---|---|
| Integrates information across the enterprise      | ✓ | ✓ | ✓ |
| Establishes accountability to common IT standards | ✓ | ✓ | ✓ |

**Exhibit 11.1 - 2 - How Our Solution Meets the Commonwealth's Business Requirements**

### **Respond to the Needs of a Growing, Diverse Population**

“Doing more with less” has become an overused slogan. The recent economic slowdown and associated revenue shortfalls at all levels of government, the corresponding demands on public services and assistance, the increasing threats to homeland security, and the unforeseen costs and demands incurred because of mother nature (drought, flood, Hurricane Isabel, tornados) demand innovative approaches to revenue generation and appropriation. The Commonwealth Partners provides Virginia with a solution that saves money and has the potential to generate revenue. These monies can be used to fund important social and operational programs, while directly improving the Commonwealth's homeland security and the reliability of the technology infrastructure.

### **Attract, Manage, and Retain a Highly Skilled Government Workforce**

The aged technology deployed by the Commonwealth today not only impacts the ability of the agencies to efficiently deliver services, but also the Commonwealth's ability to attract new resources to its workforce. There are many reasons for this – the booming economy of the 90's, enhanced employment opportunities, and increased entrepreneurial spirit. Additionally, the Commonwealth, like many states, is facing a potentially disastrous situation with the aging of its workforce. In the next 5 – 7 years, over 50% of the Commonwealth's workforce will be eligible for retirement. There is also another reason – the Commonwealth's reliance on aging technology that does not provide new employees with the challenge or ability to demonstrate learned skills. These are areas that the Commonwealth Partners' solution addresses.

Improving government services and information delivery to citizens is contingent on improved human resource management practices that attract and retain a motivated and highly skilled government workforce empowered with the latest technology. The workforce also must receive the training needed to meet the increasing demands of technology-literate citizens, as well as threats from hackers and other criminals. Commonwealth Partners will help bridge that gap by helping VITA accelerate its ability to take advantage of the benefits provided by new technology and a highly proficient workforce.

In addition to new skill-set development, all in-scope VITA workers will be offered employment under our proposed approach. Salary levels will be increased and the potential for additional increased compensation will be much higher working with Commonwealth Partners in the private sector.

### **Promote Continuous Improvement**

The Commonwealth must continuously strive to improve the processes and enabling infrastructures that support the business of the Commonwealth. To fulfill the overarching strategy that technology enables business, the Commonwealth must ensure that the continuous realignment and improvement of technology efficiently supports the changing needs of its citizens and the government that serves them. The transition to VITA is a clear example of continuous improvement in action.

The Commonwealth Partners, through the breadth and depth of its members, will bring proven best practices to VITA. We will work with VITA to assess the needs and current state of the Commonwealth, and bring forth innovative ideas to address those needs. Working hand in hand with VITA, we will

continuously look for ways to improve processes and business practices to better serve the Commonwealth.

### **Reduce Gap between Availability and Adoption of Technology**

To facilitate the adoption of new technology and improve the quality of service delivery to its citizens, the Commonwealth must implement a proactive strategy to make technology available across all state agencies.

One of the first steps in this program will be for the Commonwealth Partners to evaluate the deployed network infrastructure to assess the best means of reducing the technology gap between agencies and geographies.

The Commonwealth Partners' transition approach will help make the Commonwealth's goal for enterprise-class IT a reality by establishing a standards-based architecture that enables rapid deployment of solutions at a lower overall cost.

### **Foster Economic Development**

Virginia must continue to seek a competitive advantage and attract new business and industry by exploiting technology for the betterment of all its citizens. Virginia's demonstrated commitment to operational excellence in information technology sets the Commonwealth apart from other states and places Virginia center stage as a leading high-technology contender in a global marketplace. Our approach addresses short-term economic needs and also provides a platform that will foster economic development by increasing services provided to new clients in the form of localities and higher education.

## ***Benefits to the State Agencies***

### **More Capabilities**

With the capabilities provided through high availability technologies, more state agencies will have the opportunity to benefit from the consolidation of applications with critical up-time requirements. Such applications, which previously could not be migrated to a consolidated data center due to lack of space or high cost, may now be centralized, resulting in improved service levels and reliability.

### **More Technology, More Services**

The stovepipe nature of many agency business processes and IT implementations has led to significant duplication, overcapacity, and non-standardization. The overspending of resources to support these independent implementations has been at the expense of other business-related process improvements and innovations. The answers to these problems include:

- **Enhanced interoperability.** The Commonwealth Partners' approach can help the agencies establish baseline technology standards and service delivery capabilities using enterprise-oriented, centralized applications. The result will be lower costs, improved services, and increased interoperability.
- **Enhanced customer service.** Agencies must provide sound service to all customers of the Commonwealth, whether the customer is an individual citizen, business, or other government organization. Faced with an increasing demand for a customer-centric government and driven by service delivery models in the private sector, Virginia must redefine its focus on customer service. The Commonwealth Partners' emphasis on high quality, high availability, lower cost, and operational excellence provides the basis for improving levels of customer service. The Help



Desk we are proposing will also provide enhanced customer service to all state employees who access Virginia's technology infrastructure.

- **Improved quality of information and decision-making.** Information drives the business of the Commonwealth. Virginia must continuously strive to improve information quality to best serve the state's varied customers. The Commonwealth Partners' approach actively seeks improvement in the accuracy, timeliness, and availability of information. Our goal is to provide opportunities for improved decision-making and service delivery in both the public and private sectors.

### ***Benefits to Minority Businesses***

The Commonwealth Partners are firmly committed to the involvement of SWAM businesses. In our proposal we identify a commitment to pursue 40% of available spend with SWAM participation. The Commonwealth Partners will work to meet or exceed the SWAM commitments identified and recommended by the Governor's taskforce. Our commitment is to match or exceed the expected level of participation of SWAM businesses in this initiative.

In addition to this commitment, we will also pursue additional opportunities for partnering by:

- Communicating early in the process to obtain input and feedback from those leadership groups in the development of the plan;
- Designing a business case for the new facility to identify SWAM businesses opportunities; and
- Meeting with and encouraging SWAM businesses to participate in the bid process, following state guidelines related to the use of these businesses in government contracts are followed, and ideally surpassing expectations.

### ***Benefits to the State Government***

By achieving their mission to provide enhanced, quality services to its citizens in a fiscally responsible manner, the government of the Commonwealth will benefit from improved citizen satisfaction and fiscal accountability. The transition proposed by the Commonwealth Partners is a cornerstone public-private partnership relationship that enables more services, at lower cost, across a multitude of fronts.

By viewing the state in an enterprise manner, rather than on an agency-by-agency basis, the Commonwealth will be able to recognize overall cost savings – savings that will be realized in improved delivery of services, reduced administrative costs and immediate savings in IT acquisition and support expenditures. These savings, in turn, will result in significant dollars that can be budgeted and allocated to programs or investments in new solutions to further drive efficiencies and cost savings. This will mean fewer hard decisions regarding programs to cut or services to eliminate. The approach proposed by the Commonwealth Partners serves as the cornerstone for such savings and operational efficiencies.

### ***Support and Partnership for the Project***

Our proposed solution will provide clear benefits for the Commonwealth's citizens, employees, and state agencies—benefits evident through more services and higher reliability—while at the same time reducing costs to the state. Moving forward with the program will require change, and with change will come both support and friction.

These concerns, both collectively and individually, need to be viewed relative to risk mitigation and the benefits the transition will provide Virginia. The Commonwealth Partners will appoint an executive team to meet proactively with the Cabinet Secretaries, State Legislators, and agency heads to discuss approach and benefits. The team will also meet regularly with VITA leadership to discuss impacts and listen to

concerns. Direction and consensus from these interactions will support and provide content for our communications and work plans



### 11.1.2 Benefits to Commonwealth (Commonwealth Economic Impact Template)

#### *Economic Development Summary*

The Commonwealth Partners are committed to enhancing Virginia's future by providing more services to Virginians at a lower overall cost than today through establishing a competitive and efficient IT infrastructure. This commitment is backed by a major investment in tangible assets and capital construction, and through significant job creation, enhanced employee training and considerable payroll increases for Commonwealth employees that choose to accept offers. We are offering employment to all in-scope VITA staff. **Redacted**



#### **Job Creation, Payroll Enhancements and Training Opportunities**

##### *Commonwealth Partners Help Desk*

**Redacted**

##### *STI Knowledge Business Processing Outsourcing Center*

**Redacted**

#### *Academic Initiatives for the Commonwealth of Virginia*

The IBM Academic Initiative program is making a commitment to work with the **Redacted** to bring the following benefits to the school. Immediately on contract initiation, these customized activities will begin. There is no cost for participating in this program and while IBM offers some portion of the complete IBM Academic Initiative to public schools at large, these are custom elements specifically for the faculty and students **Redacted**:

- An IBM University Ambassador community to support the faculty with implementation, as well as with student activities such as resumes reviews and career guidance for students.
- Free access to software and curriculum on existing IBM servers at other universities in the IBM academic “ecosystem.”
- On-site curriculum/ software workshops for multiple faculty members to familiarize them with new concepts and skills.
- Guest speakers from “IBM Women in Technology” to answer questions and address concerns of young women considering careers in computer technology.
- A “Curriculum Workshop” to determine the priority of how IBM can help supplement the existing computer science curriculum. For example, an analysis of the current curriculum listed on the university’s website could lead to these joint activities:

- The Department of Business and Economics at **Redacted** offers two courses in Business Administration entitled BUAD111 – Introduction to Business Computing I and BUAD211 –

Introduction to Business Computer II. These courses could benefit from guest lecturers in business communications and the use of spreadsheet/database analysis at IBM.

- The course BUAD312 – Business Information Systems could benefit from guest lectures on project management, business case analysis, and other IT decision-making skills
- For the major in Computer Science, IBM could supplement the current courses found in the following list:

|  |   |
|--|---|
| <b>Object Oriented Programming</b>               | Add object-oriented tools developed for IBM's Extreme Blue program, such as Code Rally or Code Ruler, designed to introduce the concepts of object-oriented programming |
| <b>Computer Literacy</b>                         | Invite IBM University Ambassadors as expert guest speakers  |
| <b>Foundations of Computer Programming</b>       | Implement IBM's semester long "Java with Eclipse" course offering as well as Rational Application Developer   |
| <b>Programming in COBOL</b>                      | Consult with IBM's iSeries and zSeries experts to add "large systems thinking" and "RPG Fundamentals;" there are acute job shortages in this area.                      |
| <b>C and C++ Programming</b>                     | Supplement with Java and Eclipse using IBM curriculum   |
| <b>UNIX Systems</b>                              | Add IBM Linux offerings   |
| <b>Fundamentals of Computer Science</b>          | Invite IBM University Ambassador guest speakers to provide "big picture" view   |
| <b>Computer Systems Analysis and Development</b> | Include IBM University Ambassadors involved in SW development at Raleigh  |
| <b>Database Design and Applications</b>          | Supplement with labs using Derby/Cloudscape, Informix, and DB2 to increase job skills   |
| <b>Computer Networks</b>                         | Introduce world-class Tivoli offerings  |
| <b>Software Engineering and Methodology</b>      | Use the Rational modeling tools   |
| <b>Business Intelligence</b>                     | Implement Data Warehouse and WebSphere tools  |
| <b>Advanced Classes</b>                          | Consider adding "Services as a Science" Curriculum based on IBM methodology   |

## New Facilities and Employee Benefits

### *New Facilities*

**Redacted**

### *Employee Benefits*

For VITA employees that accept a position with Commonwealth Partners **Redacted**

The Commonwealth Partners are committing our current staff to the Virginia Infrastructure Initiative bringing our best practices, policies and procedures to assist VITA in achieving their Information Technology objectives. We will establish a strong partnership with the day-to-day relationships our executive, management and technical teams build with VITA staff. **Redacted**

*Commonwealth Economic Impact Templates*

**Redacted**

## **Primary Data Center**

**Redacted**



**Office Building**

**Redacted**





**Call Center Help Desk**

**Redacted**

**STI Knowledge Other**

**Redacted**



### ***Economic Development - Backup Recovery Center Cost Savings***

One of the parameters for providing a Backup Recovery Center in Section 4.0 of Schedule 4 is “the selected location must support community development and job growth in a rural and economically depressed area of the Commonwealth”. The Commonwealth Partners appreciate the goal to provide economic stimulus and jobs to the Commonwealth of Virginia. Throughout the proposal effort, our team has looked for creative methods and opportunities to satisfy this goal.

Our analysis of creating a Backup Data Center provided some interesting insights. The design points for construction of a new building are:

1. The center would be designed and constructed to meet industry standards.
2. The center would be located outside a 100 mile radius from the primary data center.

A declared disaster is defined as follows:

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“Any unforeseen event, which directly or indirectly impacts Systems availability, beyond acceptable service levels that would result in the decision to recover the Systems at an alternate processing site”

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Disaster situations would include situations in which the Systems are unusable or inaccessible. We assume that the disaster could be of sufficient magnitude that return to the primary data center could take months or years. As such, our decision was to design a structure with sufficient square feet to accommodate square footage comparable to the primary center

In laying out costs to create a Backup Recovery Data Center, the cost estimates for constructing the primary data center may be used for planning purposes. Since administrative office space was placed in a separate building from the primary center, using the cost of the primary data center should provide a good basis of estimate for a new Backup Recovery Data Center. The table below shows the monthly cost for each of the 7 years of the contract.

#### **Redacted**

Monthly recurring costs include costs for raised-floor electrical, grounds maintenance, real estate taxes, and security.

When we looked at the monthly costs, we became concerned that this solution was not in the best interest of the Commonwealth of Virginia. The following points should be noted:

1. The costs have not yet included the cost of computing hardware. A creative solution might be to populate the center with the displaced RPB hardware that remains after transition to the new primary data center. However, it is probably overly optimistic to expect no equipment purchases.

2. The costs do not include any software costs. If the center is restricted to only supporting DR, the license terms may not allow us to use the software licenses in the primary data center.
3. The costs do not yet include any costs to move, setup, and install the hardware in the new recovery center. In addition, costs do not include any software or hardware maintenance costs.
4. The new recovery center would only be staffed with a small number of security and maintenance staff.

Even without accounting for the additional costs outlined in the items 1-4, the Commonwealth Partners began to conclude that this may not be a cost effective solution for the Commonwealth of Virginia. To save the Commonwealth money, opportunities for a better economic solution were pursued.

#### **Redacted**

- Existing hardened site on day 1 that meets industry-acceptable standards.
- Meets or exceeds the 100 mile distance requirement. For regional-wide catastrophes, locating the DR center outside of the Commonwealth can provide enhanced recovery. Some accounts prefer an out of state solution for this reason.
- Options already exist in the BCRS to support electronic vaulting. Electronic vaulting is mentioned in the SOW, and could be accommodated in the future.

The primary disadvantage of the BCRS option is the DR location would be located outside of the Commonwealth of Virginia. However, the recurring job opportunities at a new facility would be limited to a small number (approximately 5) custodial and security personnel.

*The Commonwealth Partners believe the BCRS solution offers significant cost savings to the Commonwealth and its taxpayers. These cost savings easily outweigh the benefits of a few new jobs, and we respectfully recommend this option, to create a more effective economic solution.*

#### ***Commonwealth Economic Impact Template for Back up Data Center***

(For soft copy refer to file above)

## **Back-Up Data Center**

**Redacted**

### 11.1.3 Specific benefits in this transaction

IBM's experiences, capabilities and philosophy are well aligned with the strategies and needs of VITA and of the Commonwealth overall. These strengths are enhanced through the skills of the other organizations which have joined IBM to form the Commonwealth Partners.

From our founding, IBM has been a company that is grounded in the Information Technology industry – it is our only focus from the Boardroom to clients' offices around the world. Our differentiating characteristic has always been the application of business principles to guide and direct the technological core of our business. This approach to the development and deployment of technology is the source of much of the value that the Commonwealth Partners and VITA can generate together for the benefit of Virginia government agencies and ultimately for the citizen and business constituents of the Commonwealth.

This section of our proposal will focus on the specific attributes and capabilities of the Commonwealth Partners – particularly IBM – that distinguish our ability to form a partnership with VITA that will add value for the benefit of all Virginians. There are two overarching themes to this segment: Return on Investment and Risk Reduction. Both of these elements of our proposal emanate from our longstanding, unique blend of technological expertise and business focus. Our ability to enhance your ROI is linked to our offer to share with VITA the expertise we have gained delivering IT capabilities and services to clients around the world. This will help VITA to sustain and expand IT service delivery excellence in Virginia. Our ability to reduce your risk is based on our willingness to draw on the experience and knowledge gained firsthand through activities that extend from basic scientific research to enormous transformation and integration projects. These capabilities can be shared and reapplied across Virginia through VITA.

### ***IBM: Who We Are, What We Believe***

From the time human beings realized that information could be recorded, manipulated and recalled by punching holes in paper cards, many companies have entered the Information Technology industry – and most of those have exited. Of the companies in the industry today, none can trace their name or even their industry roots as far back as IBM. Today's application of IT bears no resemblance to the state of the art 100 years ago, which provides evidence of two fundamentals that have enabled IBM to evolve with such a dynamic industry for such a long time.

- IBM has an unparalleled and unbroken history of technology innovation which has produced many of the information technology industry's most significant advancements.
- IBM has continually focused on ways to apply those technologies to benefit our customers' operations from the age of electro-mechanical accounting to the internet era.

This is our organizational DNA and it has changed little despite massive change in the industry and environment in which we operate. What has changed – and will continue to change – are the strategies we adopt to implement our commitment to technology and its application. In a global, company-wide forum conducted in 2003, IBM employees revisited the company's values and selected three to guide us through the coming years. They are:

- Dedication to every client's success
- Innovation that matters for our company and for the world
- Trust and personal responsibility in all relationships

We believe that commitment to these principles will enable us to sustain the position we treasure in the IT industry. Their value to VITA is based on the depth of our commitment to these principles and the



relevance of our efforts to VITA. The remainder of this section addresses those two points using our values as an outline.

## ***Benefits Specific to this Comprehensive Infrastructure Agreement***

There is a significant amount of text on the following pages, corresponding to the significant amount of benefits the Commonwealth will receive by collaborating with IBM and the Commonwealth Partners in this Infrastructure engagement. This chart provides a synopsis of the benefit and recipient.

| Additional Value Add                                  | Citizens of Virginia | Secretary of Technology | VITA | Office of the CIO | Individual VITA Staff | Executive Branch Agencies | Dept. of General Services | Non-Exec. Branch Agencies | Local Cities & Counties | Department of Education | Institutes of Higher Ed. | Vocational Schools | Professors & Teachers | College & Univ. Students | Redacted |
|---|----------------------|-------------------------|------|-------------------|-----------------------|---------------------------|---------------------------|---------------------------|-------------------------|-------------------------|--------------------------|--------------------|-----------------------|--------------------------|----------|
| Virginia Value Creation Center                        | X                    | X                       | X    | X                 | X                     | X                         | X                         | X                         |                         |                         |                          |                    |                       |                          |          |
| VVCC Initial Proof of Concept Initiative (Scenario 1) |                      |                         | X    |                   | X                     | X                         |                           |                           |                         |                         |                          |                    |                       |                          |          |
| VVCC Initial Proof of Concept Initiative (Scenario 2) |                      |                         | X    |                   |                       | X                         |                           |                           |                         |                         |                          |                    |                       |                          |          |
| Senior IBM Research Management Relationship           |                      | X                       | X    | X                 | X                     |                           |                           |                           |                         |                         |                          |                    |                       |                          |          |
| IBM's Industry Solution Labs                          |                      | X                       | X    | X                 | X                     |                           |                           |                           |                         |                         |                          |                    |                       |                          |          |
| Extreme Blue  |                      |                         | X    |                   | X                     |                           |                           |                           | X                       |                         |                          |                    |                       | X                        |          |
| IT Value and Optimization                             | X                    |                         | X    |                   | X                     |                           | X                         | X                         |                         |                         |                          |                    |                       |                          |          |
| Experience Based Discussions                          |                      | X                       | X    | X                 | X                     | X                         |                           |                           |                         |                         |                          |                    |                       |                          |          |
| Participation in Standards Bodies                     |                      | X                       | X    | X                 | X                     |                           |                           |                           |                         |                         |                          |                    |                       |                          |          |
| Services Science                                      | X                    |                         | X    |                   |                       |                           |                           |                           |                         | X                       |                          |                    |                       |                          |          |
| Customized EBI Business Education                     |                      | X                       | X    | X                 | X                     | X                         |                           |                           |                         |                         |                          |                    |                       |                          |          |
| MIT CIO Summit  |                      |                         |      | X                 |                       |                           |                           |                           |                         |                         |                          |                    |                       |                          |          |
| Industry Landscape Workshop                           |                      | X                       | X    | X                 | X                     | X                         |                           |                           |                         |                         |                          |                    |                       |                          |          |
| Transformation Workshop                               |                      | X                       | X    | X                 | X                     |                           |                           |                           |                         |                         |                          |                    |                       |                          |          |
| Academic Case Study on the Concept of VITA            |                      | X                       | X    | X                 |                       |                           |                           |                           |                         |                         |                          |                    |                       |                          |          |
| IBM Academic Initiatives                              |                      |                         |      |                   |                       |                           |                           |                           | X                       | X                       | X                        | X                  | X                     | X                        | X        |
| IBM Advanced Career Education                         |                      |                         |      |                   | X                     |                           |                           |                           |                         |                         | X                        |                    |                       |                          |          |
| IBM Academic Initiative for the Commonwealth of VA    | X                    |                         |      |                   |                       |                           |                           |                           | X                       | X                       |                          | X                  | X                     | X                        |          |
| Faculty Awards  |                      |                         |      |                   |                       |                           |                           |                           | X                       | X                       |                          | X                  | X                     | X                        |          |
| Shared University Research (SUR) Grants               |                      |                         |      |                   |                       |                           |                           |                           | X                       | X                       |                          | X                  | X                     | X                        |          |
| "Go To Market" Strategy                               | X                    |                         | X    |                   |                       |                           | X                         | X                         |                         | X                       |                          |                    |                       |                          |          |
| ViaScribe   | X                    | X                       | X    | X                 | X                     | X                         | X                         | X                         | X                       | X                       | X                        | X                  | X                     | X                        | X        |

### **11.1.3.1 Dedication to every client's success: The Virginia Value Creation Center**

The Commonwealth Partners has defined an approach to identify the relevant experiences from our global businesses and deliver them to VITA throughout the performance period of this contract. We refer to this concept as the Virginia Value Creation Center (VVCC). This concept reflects both our commitment to VITA's success and our belief that the delivery of value will require collaboration between the Partners and VITA. The VVCC is the organization and process by which this can occur.

During the term of the Comprehensive Infrastructure Agreement, VITA's business needs and its relationship with its customers will probably change in significant and unforeseen ways. The technology and service delivery strategies that allow VITA to serve its agency customers will certainly change also. From our experience with clients of all sizes around the world, we anticipate that your offerings may evolve to include:

- ***Traditional IT delivery services***

- **Shared services and integration** that reduce cost and improve results for multiple agencies whose missions interconnect
- **Transformation services** that simultaneously evolve the business processes and IT capabilities of Commonwealth agencies

The Commonwealth Partners team has expertise in all of these areas, and the VVCC is the mechanism we feel can deliver the appropriate portions of that to VITA when and where it is needed.

We propose that this virtual center be staffed with a combined VITA and IBM team focused on delivering competitive advantage and driving innovation and transformation, while supporting the alignment of business and technology across the Commonwealth. Our approach will provide VITA with **access to IBM Research, emerging technologies, industry specialists, and expertise from the worldwide resources of both IBM and our Business Partners**. To provide VITA the most benefit from this program, we propose that it be jointly guided by senior executives from both VITA and IBM.

IBM's commitment to VITA in this matter is significant, as it will provide a unique means to focus our relationship on building and maintaining value for VITA in its delivery of service to its customers. **IBM will invest the equivalent of six full-time resources in establishing and running the VVCC**. This number will include technologists and industry thought leaders who will provide access to a worldwide virtual pool of specialists. They will operate under the guidance of experienced IBM executives who work with Governments around the world. To be fully effective, the team will require similar participation from VITA's technical and business professionals at all levels.

Implementation of the VVCC would be subject to mutual agreement on a framework which describes issues such as intellectual property and residual knowledge rights for the work of the VVCC. These terms will be separate and distinct from those contained in the Comprehensive Infrastructure Agreement.

The mission of the VVCC will be to help the Commonwealth gain the greatest possible business value from the innovative use of technology and the business processes that exploit it. This will be achieved by the Commonwealth Partners teaming with VITA to:

#### The mission of the Virginia Value Creation Center

Position the Commonwealth of Virginia to gain the greatest possible value from innovative uses of technology to support Commonwealth initiatives with leading ideas and technologies, and to migrate them from concept to proof-of-concept to full implementation.

- Support evolving and emerging Commonwealth business initiatives by bringing together the leading ideas and technologies, and precipitating their smooth migration from concept, to proof-of-concept, and as required, to full implementation for both near and long-term projects.
- Inform VITA's leadership team on the opportunities offered by technology and service delivery business processes.

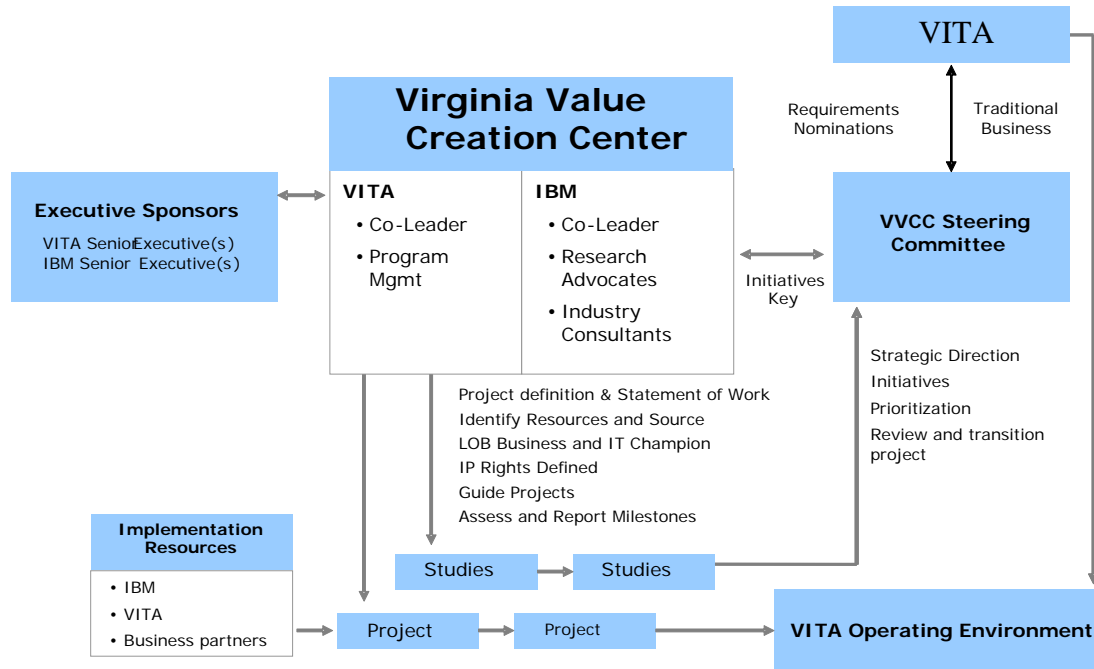
To make the most of this model we recommend that VITA appoint a senior executive to serve as the VVCC executive sponsor. Further, we propose that the Center be co-managed by two leaders, one from IBM and one from VITA. These leaders will focus on the Commonwealth's strategic challenges and then identify and engage the right resources to extend the value of the partnership beyond the initial expectations of the agreement. The leaders should be senior professionals with extensive knowledge of the government and information technology. They will serve as the point of contact for innovation efforts and will interact with Commonwealth executives to promote the delivery of substantial and measurable business value.

We also recommend the creation of a cross-organizational joint executive council comprising senior executives and business leaders from the Commonwealth and IBM. This council will provide executive guidance and monitor the VVCC's progress in fulfilling its mission. Senior IBM executives from the IBM

Global Services State and Local Government organization are prepared to serve as members of the council. The joint executive council should meet quarterly to review the activities undertaken.

The effectiveness of the VVCC team should be measured by how well it drives innovation that influences VITA's business strategy and leads to deployed solutions.

The operational flow of the proposed VITA VVCC is depicted in the following figure.



**Figure 11.1 - 3 - This figure demonstrates the flow of value creation activities through the VVCC.**

It is our intent that the VVCC provides continuous support on strategic issues rather than providing occasional information, briefings, and project support on individual initiatives. These resources are assigned to improve success rates and speed-to-market for key initiatives. Central to our VVCC concept are:

1. Understanding trends and directions for technology and business.
2. Analyzing technology for new business initiatives.
3. Creating proof-of-concept projects and evaluating options to support business decisions.
4. Supporting a disciplined process for VITA's adoption of new technology.

It is our belief that the VVCC structure, staffing and processes outlined here will form an effective approach to allow VITA and IBM to agree on the strategic opportunities and imperatives for the relationship then to identify and engage resources to achieve results. This approach is indented to avoid a common occurrence in contracts of this sort where agency needs and technologies evolve while services and delivery approaches remain fixed. The commitment of all participants to establish a collaborative, strategic element to guide the relationship is the best approach to avoid declining relevance of the relationship over time. IBM is prepared to invest in this area and invites VITA to do the same through allocation of Business Development resources. In addition to the commitments made elsewhere in this document, we believe this approach will allow us to demonstrate and fulfill our commitment to VITA's success.

## ***Innovation that Matters: Harnessing the IBM Global Organization***

IBM attributes its longevity in a dynamic and competitive industry to many factors, one of which is our commitment to innovation. While this work is grounded in our worldwide IBM Research organization – which includes over 3,000 scientists working in eight laboratories located around the world – it carries through to our development and delivery organizations as well. The current IT industry environment has led us to focus on both the tools and the business processes that deliver the value of information technology to our diverse global client base. A brief summary of our history in this area includes:

- **Basic Research:** Many IT industry innovations begin with new discoveries in physics and materials science. IBM innovations in this area include:
  - The invention of the Scanning Tunneling Microscope.
  - The discovery of the mathematical principles of Fractals.
  - Pioneering research in Superconductivity and Lasers.
  - Materials science breakthroughs including the integration of copper in silicon chips.
- **Information Management Tools and Systems:** The application of available materials and techniques to produce practical tools to handle information. In this area IBM has pioneered:
  - Countless inventions in tabulating and computing equipment beginning with Herman Hollerith's development of punched card tabulating equipment at the Tabulating Machine Company. That organization became the Computing-Tabulating-Recording Company in 1911 and was one of the three companies that combined under the name IBM in 1917.
  - The invention of the first practical disk drive.
  - The introduction of the first widely used computer "system" – System/360.
  - The invention of Relational Data Base technology and the Reduced Instruction Set Computer.
  - The introduction of the first widely used personal computer – the IBM PC.
- **Technology Application and Management:** While technology and devices are often the most visible aspects of IT, the ways they are used by people is equally important to realizing their value.
  - IBM was a leader in hiring and providing accommodations and tools for people with disabilities.
  - Pioneering application of new technologies to defense and space exploration.
  - Support for the creation and sponsorship of the US Reinventing Education Initiative.
  - Application of advanced technology to research initiatives in many countries including the US through the Department of Energy.
  - Deployment of Grid technology to support improved mammography under the leadership of the University of Pennsylvania and the World Community Grid.

Collectively, these innovations have earned IBM four Nobel Prizes, seven (US) National Medals of Technology and a position as the world's leading company in patent awards. In 2004, for the eleventh consecutive year, IBM was awarded **more U.S. patents than the combined total awarded to 12 of the**

**largest companies in the IT industry**, with a record of 3,411 patents issued. IBM was awarded more than 15,000 patents during the 1990s, tripling its output of the previous decade. IBM owns more than 32,000 patents worldwide.

The pace of innovation has only accelerated as information technology and systems have become more complex, more ubiquitous and more tightly linked to our clients' ability to achieve their organizational goals. Our current innovation priorities span a wide spectrum of activity designed to build on the past successes noted above and extend to address new challenges such as the integration of technology with processes that frequently span organizations, nations and cultures.

IBM's ability to innovate is of little practical value to our clients unless it is connected to their achievement of goals and objectives that are critical to their business results. To make that connection for VITA **we are proposing the guidance process of the VVCC backed up by specific linkages to key points of innovation within IBM beginning with a special relationship between VITA and IBM Research**. This relationship will provide access for VITA to the following types of support and services aligned to the strategic priorities identified by the VVCC. There is no charge for these services. However any potential travel and living expenses would be at the obligation of the Commonwealth.

- **Senior IBM Research Management Relationship** – Through the VVCC, IBM will provide access to the IBM Research Management team. We have already identified and designated specific personnel within our Research community whose expertise aligns with the needs of Government agencies. These people will be the first point of engagement.
- **IBM's Industry Solution Labs** – These labs located in New York and Zurich provide a unique environment for customer executives to engage Research and discover how leading-edge technologies and innovative solutions can help solve business problems. We will engage these centers directly and as necessary with VITA customer agencies to explore and evaluate advanced technology applications.
- **Extreme Blue** – Started in 1999, Extreme Blue acts as IBM's idea incubator. By combining the enthusiasm and intellect of the best and brightest students with corporate resources and mentors, Extreme Blue has led to successes within a wide variety of projects and initiatives. Extreme Blue matches handpicked, top-tier students from undergraduate, Masters and Doctoral programs to work in small groups with corporate mentors during an eleven-week program. IBM would like to investigate with the Commonwealth problems or issues that may be appropriate for the Extreme Blue program. Examples that may be of interest to the Commonwealth include having University of Virginia students research the use of GRID and Linux technologies in a state government environment, or explore the business case for VITA selling its excess capacity as a service, and to whom. IBM offers the Commonwealth an eleven-week program in the fourth full year of the contract, with the possibility of an additional program in the first year of each of the two potential contract extensions. The program will be developed with the cooperation of the institute of higher learning chosen by the Commonwealth.
- **IT Value and Optimization** – As organizations move from their current environment to an on-demand environment, IBM IT Optimization Services can help better leverage IT assets and capabilities to improve the return on investment. The overall approach of the IT Optimization Services is to examine an organization's ability to achieve business value in seven key areas; business/IT alignment, physical infrastructure, applications and data, process, organization, network and the financial environment. Based on the analysis, the resulting initiatives are prioritized within a balanced scorecard.

IBM would like to explore the applicability of an IT Value and Optimization Workshop to provide a rapid and focused way for the Commonwealth to develop a high level roadmap to increased IT Value. This one to two day executive workshop, held onsite, would focus on:

- Increasing the value of IT to specific business processes and functions
- Understanding the current pain points, affected processes, and supporting IT services and fabric (process, organization, technology)
- Establishing consensus on the relationship between VITA and other agencies
- Understanding the maturity of the IT fabric, strategy for use of IT, and the level of business integration
- Identifying the current highest priority business and IT key performance indicators (KPIs) and their relationship to one another
- Inventing KPI improvement scenarios based on changes to IT fabric
- Developing the initial highest potential value improvement strategy

### ***Putting it all together: Value creation scenarios***

While the work to be undertaken by the VVCC is necessarily theoretical at this time, IBM wishes to show that we can deliver real value from the earliest possible point in the Agreement. **Therefore, we have outlined below two Value Creation Scenarios, which act as examples of how the VVCC would actually operate to orchestrate the delivery of value to the Commonwealth using some of the programs described above.** We believe that these scenarios are relevant and hope that VITA will consider assigning them as an actual activity for the VVCC or suggest other higher priority options. IBM would be pleased to discuss these scenarios as well as any additional VITA proposals at a future stage in the process.

#### **Value Creation Scenario 1: Mobil Workforce Transition**

Efficient utilization of real estate and facility decisions can result in millions of dollars of cost savings. Many organizations, including IBM and Bearing Point, have undergone large scale workforce transformation projects over the last decade. The Commonwealth of Virginia is currently undergoing a real estate portfolio assessment, with the objective to optimize management of state assets. As Virginia considers efficient allocation of real estate resources, a strategy to consider is transforming the state's workforce to accommodate a mobile workforce. Mobile workforce solutions have helped organizations achieve significant savings such as:

- Reduce occupancy costs by up to 50%
- Increase worker productivity up to 20%
- Improve business continuity and resiliency

The Commonwealth Partners have established a teaming agreement with a leading provider of mobile workforce solutions, AgilQuest. AgilQuest Corporation is headquartered in Richmond, Virginia. AgilQuest software enables organizations to optimize the office workplace by providing hotelling and resource management tools, as well as decision support tools for executives.

The VVCC can be utilized to help Virginia assess the feasibility of a mobile workforce and help Virginia design its "Office of the Future." Working in collaboration with VITA and other state leadership, we propose a project to develop a proof-of-concept pilot project for a mobile workgroup. As VITA transforms its technology infrastructure, there is significant opportunity to impact technology requirements, particularly network infrastructure, by considering mobile workforce alternatives. As with any large scale transformation, mobility will also necessitate change in workplace culture. The VVCC



proof-of-concept pilot can be used to help Virginia understand the considerations of a mobile workforce transformation, and integrate it with its strategies to leverage the state's real estate portfolio.

## Value creation scenario 2: Pro-active service quality management

Currently, VITA's performance agreements with suppliers are embodied in documents – natural language text – that describes the performance levels expected of the supplier and the penalties associated with failure. Time is spent on both sides of this relationship gathering data and negotiating adherence to the agreement or whether penalties are warranted. As VITA's Infrastructure Outsourcing Model matures, IBM believes that this process has opportunities for automation that provide openness and visibility. Implementing such an approach should, in our opinion, be a strategic direction for VITA.

Working in collaboration with VITA's technical leaders and contacts, the VVCC will define a proof-of-concept effort. With the approval of the VVCC Steering Committee, we will marshal resources to convert a small number of agreements (i.e., SLAs) into executable XML and define the automatically measurable elements that determine compliance. Once VITA and the effected Performing Supplier(s) agreed to the representation, we will automate the complete SLA compliance evaluation process and provide visibility to all stakeholders. This capability will enable proactive SLA compliance monitoring that cannot be questioned and will provide on demand preliminary evaluation of contractual service-levels with support for quality measure adjudication.

The following diagram illustrates the process whereby service levels and measurements can be automated.

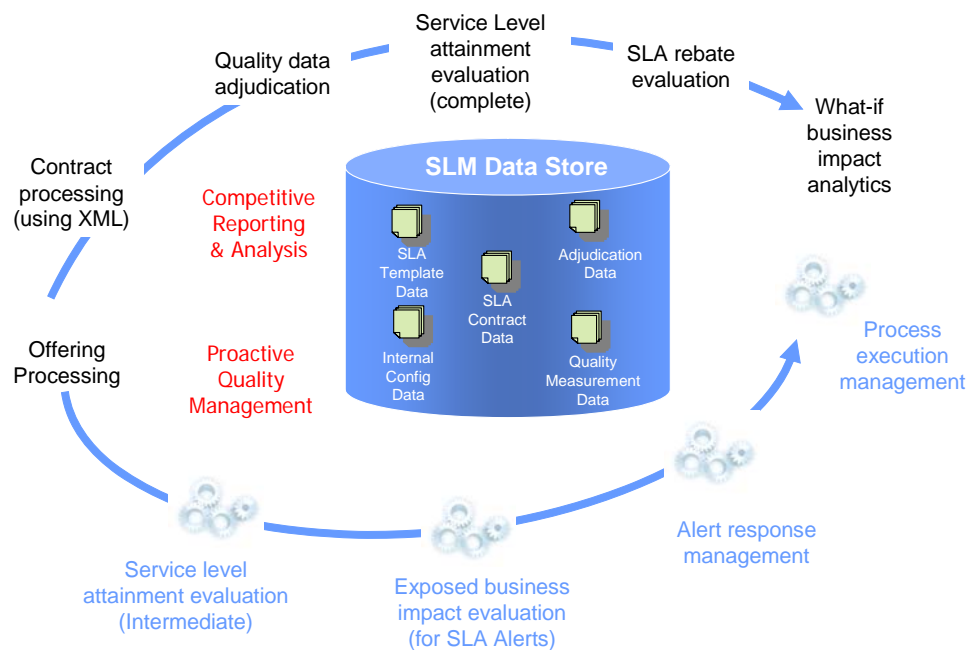


Figure 11.1 – 4 - Automation of service levels and measurements concept

### 11.1.3.2 Trust and personal responsibility in all relationships: How we do business

IBM's commitment to trust and responsibility has been a part of how we do business from the time our founder – Thomas Watson, Sr. – codified IBM's three "Basic Beliefs" which included "Respect for the



Individual”. In today’s statement of IBM’s beliefs, that has been clarified and focused on two words – trust and responsibility.

In the context of this proposal, these principles can be described simply as the creation of an open and effective partnership between the The Commonwealth Partners and VITA for the benefit of both organizations. We believe that this approach is the key to deliver meaningful value for the people of Virginia. Many aspects of how we propose to accomplish this have been described above. This section covers the remaining aspects which focus on the inclusion of VITA, the agencies it serves and Virginia constituents in programs that extend the value of our proposal beyond the delivery of requested services.

We believe that the unique role VITA plays within the Commonwealth and the similarity of that role to some of our core businesses provides the basis to demonstrate this principle. We propose to do that through the extension of applicable programs and offerings. This section of the proposal describes those programs which we believe have relevance. Other programs will certainly be explored and perhaps added to this list through the work of the VVCC and normal business activities described elsewhere in this proposal.

The following are select benefits that will be made available to the Commonwealth of Virginia as an IBM Client. These benefits are made available through IBM’s extensive network of linkages to both internal and external business and technical experts. There is no charge for these services. However, any potential travel and living expenses would be at the obligation of the Commonwealth.

The intent of sharing these capabilities with the Commonwealth of Virginia is to provide opportunity for the Commonwealth to:

- Participate in IBM’s network of internal and external briefings, conferences, executive education seminars and university educational offerings
- Participate in IBM’s network of external relationships such as industry-specific partnerships, universities and standards bodies and to
  - Leverage IBM’s headlights on the horizon to provide industry, business and technology directional insights
  - Leverage IBM’s extensive network of internal and external research capabilities to explore both business and technology issues
  - Leverage IBM’s internal expertise by interacting directly with IBM executives on key business issues, or with experts responsible for optimizing the value delivered through IT, IT and business directions, or the application of advanced technologies

IBM will work with the Virginia Information Technologies Agency to select appropriate activities and timelines that will provide the Commonwealth maximum results and benefits from this menu of value add initiatives:

### ***Technical Expertise:***

**Experience Based Discussions** – IBM maintains deep research, business and technical expertise throughout our company and with a select group of universities. This expertise includes IBM Distinguished Engineers, IBM Research Fellows, IBM executives, and university researchers. We are offering to share this level of expertise with the Commonwealth in one-on-one discussions on issues, best practices, policy, and governance topics applicable to IT. A starting point might be in the area of security, and may include discussions with our Office of the CIO or with IBM Distinguished Engineer in the area of security, or discussions with Pennsylvania State University on research being conducted on the vulnerability of government web sites and applications. The Commonwealth would be eligible for

participation in this initiative immediately upon contract initiation. These discussions will be scheduled and coordinated with the IBM Infrastructure Project Office. A minimum of two activities per year of the contract will be available to the Commonwealth at no additional cost. If additional discussions are requested or required, they will be handled through the Change management Process and may potentially carry a cost to the Commonwealth, depending on the request and the frequency.

**Participation in Standards Bodies** – IBM participates extensively in technology and industry standards and policy bodies. This participation ranges from simply attending meetings to chairing specific committees. In certain circumstances client executives sometimes have interest or need to develop deep knowledge and understanding about how standards are being developed and the direction of that development. On those occasions, client executives would have opportunity to attend or participate in these standards bodies through IBM’s membership and participation. If the Commonwealth of Virginia has such a need, IBM can explore with the Commonwealth the potential for Commonwealth executives to attend or participate in appropriate standards forums. The Commonwealth would be eligible for participation in this initiative immediately upon contract initiation. This activity will be scheduled and coordinated with the IBM Infrastructure Project Office.

**Services Science** – The Commonwealth is strongly focused on providing world-class services to its citizens and constituents. IBM has begun an initiative with universities, government and commercial organizations through the development of an Advisory Community for interested parties. IBM would like to examine the applicability of this Advisory Community to the Commonwealth, and their potential participation. The Commonwealth would be eligible for participation in this initiative immediately upon contract initiation.

### ***Education and Conferences:***

**Customized Executive Briefing Institute (EBI) Business Education** – IBM offers executive level courses that integrate leading-edge business ideas with real-world best practices and IBM’s own experience. Executives worldwide have attended and praised the courses and the instructors/facilitators. Customized courses address the client’s unique business issues and help the client gain the most from their technology investments.

The topics that are available are considered to be at the nexus of technology and management issues, such as:

- Enhancing the leadership capabilities of client executives
- Creating stronger IT strategies that drive business success and competitive advantage
- Building stronger consensus among the leadership teams across the client’s enterprise, including collaboration between LOB and IT executives in terms of their insight into the leveraging of technology in their firm

The world-class executive education portfolio of the EBI serves as the core for these sessions. Other resources that can enhance the overall impact of these sessions, beyond the EBI faculty, include: IBM executives, IBM Industry expertise, IBM Research, IBM Brands, University faculty, recognized “thinkers” (authors, consultants, etc.), motivational speakers, etc. Additional information can be found at <http://www-03.ibm.com/ibm/palisades/index.html>

IBM offers the Commonwealth one session per year for up to five participants selected by the Commonwealth. This is an open enrolment activity with course selection at the discretion of the attendee. In the event that the VITA executive team identifies a topic or issue that is of strategic importance to the Commonwealth, a custom course can be designed and delivered locally in lieu of the five individual sessions.

**Massachusetts Institute of Technology CIO Summit** – Through IBM’s relationship with the MIT Center for Information Systems Research (CISR), we can explore the Commonwealth’s inclusion in MIT’s annual CIO Summit. This event is intended for CIO’s to learn of current research initiatives and to share common experiences. The purpose is to explore opportunities created by technology change, the corresponding rise in uncertainty, and the strategies required to capture new value. Attendees:

- Learn of leading edge research and key learnings on IT Governance and Strategic Flexibility
- Engage in discussion on the implications to the ecosystem, the organization, and the individual
- Establish new connections with peer-CIOs
- Experience leading thinkers from multiple disciplines

This event is conducted entirely by the Massachusetts Institute of Technology and is by invitation only. IBM will submit a request for invitation for the VITA CIO each year of the contract. In addition to this public summit, IBM occasionally runs a concurrent private summit for our CIO customers. The VITA CIO will be included in each private summit IBM conducts.

### ***Strategy and Innovation***

**Industry Landscape Workshop** – The IBM Institute for Business Value (IBV) provides senior executives with strategic insights on the critical challenges faced by organizations in their quest for business value in today’s rapidly changing, technology-enabled environment. The IBV provides research and analysis and dialogue with subject matter experts focused on critical industry and cross-industry issues.

If appropriate, IBM would like to leverage with the Commonwealth the work of the IBV as it applies to government, in conjunction with a global technology outlook. This outlook delineates the Research Division’s vision of the future for information technology. They include forecasts of base technology trends and how those trends will come together in the future to enable new uses and capabilities for information technology. The workshops will be customized for the Commonwealth.

IBM offers the Commonwealth one session in the second full year of the contract and a second session two years after the first session. The workshop will be offered locally to minimize travel and living expenses incurred by the Commonwealth.

**Transformation Workshop** – Boston University’s Institute for Leading in a Dynamic Economy (BUILDE) is located within Boston University’s School of Management. BUILDE explores the effects of emerging technologies on competitive markets and organizations. Their goal is to improve business leaders’ decision making by bringing to bear real time insights on the impact and implications of emerging technologies on their firms and the larger economic context.

Among the many workshops and educational sessions offered by BUILDE, the Transformation workshop is geared towards organizations undergoing significant change. The approach of this session is to actually walk through IBM’s transformation in a facilitated setting with a Sr. Executive team, IBM executives and Boston University facilitators. IBM’s transformation is reviewed focusing on key lessons learned. These lessons are then re-examined in the context of the change that the organization itself is undergoing. The goal is to apply these lessons learned and points uncovered during the collaborative discussion and arrive at a “go forward” plan to optimize the organization’s own transformation.

IBM would like to examine the applicability of this workshop to the Commonwealth. If applicable, the workshop can accommodate up to ten participants selected by the Commonwealth. The workshop would be offered in the first full year of the contract.

**Recognition** – IBM recognizes the pride that the Commonwealth places in the organizational concept of VITA. To this end, IBM would like to explore with the Commonwealth the potential development of an academic case study on the concept of VITA, or the use of an Advisory Community where the Commonwealth could showcase the VITA concept to other state governments and thought leaders in state government. In addition to government leaders in attendance, other participants would include applicable academic universities, industry experts and corporations as appropriate. If the Commonwealth would like to participate in this activity, this initiative would be started in the fourth full year of the contract.

### 11.1.3.3 Nourishing the Next Generation: Learning, Education and University Initiatives

The need for skilled developers and information technology professionals is greater than ever. There will continue to be a demand in the IT industry for skilled developers and professionals. These are high-value skills beyond simple programming or system administration – those open standards skills required for on demand businesses. This is not only the case for IBM, but also our Business Partners and our customers – a multimillion-job ecosystem, and one of the industry's largest.

Other trends are converging as well. Mainframe programmers are retiring. Immigration policies are tighter, affecting the number of foreign students at U.S. universities. In addition, the global economy demands highly skilled workers. Information Technology remains one of America's fastest growing industries, encompassing computers, software, telecommunications products and services, Internet and online services, systems integration, and professional services companies (Information Technology Association of America). The IT industry now links many disciplines together including professional consulting work to help clients make the most of their IT tools and resources. From the smallest of family businesses to large, global organizations, Information Technology is what enables business in the 21st industry. It is what makes IT an interesting and rewarding career.

Some interesting facts about jobs from the Information Week National IT Salary Study 2004:

- After a few years of slow growth, IT salaries appear to be picking up again.
- Staffers earn a base salary of \$68,000; managers earn a median base salary of \$90,000.
- For staffers, the most lucrative job functions include wireless infrastructure, web infrastructure, and data mining/ data warehousing.
- For managers, the most lucrative job functions with salaries over \$100,000 include wireless infrastructure, enterprise application integration, and Enterprise Resource Planning (ERP).
- The most profitable titles for IT are architects, systems architects, and sales support engineers.
- CIOs make a median salary of \$122,000, which is \$2,000 more than the median salary of VPs.
- IT staffers and managers in the North earn the largest compensation packages followed by those in the West. IT managers in the South are receiving the largest increases in compensation.

IBM has a long and rich history of working with colleges and universities to enhance educational capabilities. IBM is already active in Virginia, and we are very interested in expanding our Initiatives, possibly even to some of the incredible high schools in the Commonwealth. The primary way to begin to uncover the potential of such relationships is through the IBM Academic Initiative:

**IBM Academic Initiative** – IBM's Academic Initiative is an innovative global program to collaborate with educators in teaching students the open standards skills necessary to compete and keep pace with changes in the ever-changing I/T workplace, and to prepare them for the jobs of tomorrow. This initiative offers a wide range of technology education benefits that can be scaled to meet the goals of most educational institutions, ranging from large research universities to community colleges and vocational schools. IBM will work with schools that support open standards and seek to use open source and IBM

technologies for teaching purposes, both directly and virtually via the Web. The **IBM Academic Initiative** is available to faculty worldwide in any school.

The Academic Initiative includes an online portal that provides access to software, hardware, training and course materials, most at no charge. Through the portal, more than 60 IBM software technologies are available for integration into college curricula to help teach students how to master the fast-growing market of open technologies. Other IBM products and services include:

- Access to leading-edge technology with access to a range of IBM and open source products available for instruction and noncommercial research. Software that will be made available to every school will include:
  - WebSphere® software. IBM WebSphere is the software infrastructure platform for e-business on demand, including market-leading technology for application servers and application development, business portals, business integration and messaging.
  - Rational® software. The software development platform for an on demand world. Rational software supports multi-platform development environments to ensure interoperability across teams and disciplines.
  - DB2® Information Management software. The infrastructure for delivering information on demand, DB2 Information Management software ensures your information is integrated, comprehensive, uniform, analyzable and accessible at all times, across all platforms.
  - Lotus® software. Improve human productivity by fundamentally changing the way people work together. Lotus software provides a complete set of secure, reliable and open offerings that focus on the human side of e-business.
  - Tivoli® software. Intelligent management software for the on demand world, Tivoli software enables you to manage your IT infrastructure to support e-business on demand computing environments.
  - Open source software such as Cloudscape/Derby, Eclipse, or Gluecode.
  - Life Sciences solutions. IBM Life Sciences solutions provides the IT infrastructure that researchers in academia, biotechnology, pharmaceutical research and healthcare need in order to turn genomics, proteomics and clinical data into scientific discovery that can lead to new treatments for disease.
  - Product Lifecycle Management solutions. Product Lifecycle Management (PLM) is a strategic approach to creating and managing a company's product-related intellectual capital from its initial conception to retirement.
  - Linux. Stable, secure, scalable and powerful, Linux is one of the cornerstones of an on demand operating environment. Eclipse has established an open source ecosystem of tools to providers and consumers by creating technology and an open, universal platform for tools integration.
  - Other software. AIX® software, cluster/scalable parallel (SP) software and application development tools.
- IBM Server Curriculum

- iSeries™ curriculum with multiple tracks representative of job environments. IBM iSeries is a highly integrated, reliable, multi-platform server that runs multiple operating systems simultaneously, and dynamically adjusts to the changing requirements of an on demand e-business.
- zSeries® curriculum available standalone or via no-charge remote access. Featuring a broad array of capabilities for scaling up, scaling out and integrating your business, IBM zSeries offers a balanced, highly secure foundation designed to simplify your IT infrastructure and dynamically manage business-critical applications in the on demand era.
- Free downloads of 80+ courseware offerings that can be used as is or modified
- IBM Server Hardware Offerings: No charge remote access to IBM iSeries and zSeries hardware and curriculum are available, as well as significant leasing discounts on iSeries servers
- Education resources ranging from product tutorials and skill development courses to publications with detailed integration guidelines; advanced technology topics and training to complete courses-in-a-box, with instructor and student guides, hands-on lab exercises and exams
- Support resources including discounts on IBM certification exams, e-mail-based technical support, newsletters, tutorials and articles, forums and newsgroups, and much more
- Discounts on certifications for faculty and students
- Online education, tutorials, articles, and technical Redbooks
- Forums, webcasts, and newsletters
- Access to the IBM developerWorks portal, a free resource for developers, administrators, architects, designers and testers
- An offer of implementing the **IBM Advanced Career Education (ACE)** in the community colleges in the Commonwealth of Virginia. ACE is a program offered through IBM Workforce Development Solutions. It provides comprehensive certificate training designed to enhance competencies and skills for a growing number of specific jobs.
  - Expert IBM teams work with educational institutions worldwide to customize training solutions that mesh with and complement existing programs. In addition, IBM provides the support services, technologies and methodologies to implement and administer programs that equip students with competitive skills demanded in the global marketplace.
  - The IBM ACE program addresses a range of real-world skills and competency development needs. The solution enables schools to help students prepare for specific jobs, and enter or re-enter the workforce with up-to-the-minute knowledge about contemporary technologies. In doing so, IBM goes beyond simply providing courseware. For example, educators may choose an end-to-end program management solution or select from among IBM's many education services to enrich and support their own offerings. Such services include: program development and project management; IT infrastructure to support learning; course content integration and management; technical, administrative and operations services; student and instructor management; assessment testing; student workstations; help desk services; and marketing support. Structured for easy implementation, IBM Advanced Career Education can be quickly scaled to accommodate evolving institution or education needs.
  - Designed to mesh with any school environment, IBM ACE offers highly integrated formats that combine classroom lectures, hands-on labs, as well as team projects. Most lectures and



labs are available in two-hour units. Additionally, in-depth student courseware materials serve as extended reference books long after students leave the classroom.

- Currently, there are two IBM ACE programs available: e-business application development (800+ hours) and Linux system administration (180 hours), with additional curricula and courses continually under development. Students who successfully finish an IBM ACE program receive a completion certificate, and the topics covered in the information technology programs help students prepare for industry-standard certifications that are recognized globally. IBM Advanced Career Education is a powerful (and cost-effective) way to help your students succeed in real-world environments, including e-business and open source.
- For the basic services provided under the IBM ACE program, the only charge would be for the student content license.
- Guest Lectures by IBM professionals and technical experts will add real-world value and experience to supplement the existing curriculums.
- No charge access to servers hosted by other universities in the IBM academic community, if applicable. These servers offer the complete suite of IBM SW and supplemental curriculum to those colleges or universities with limited IT resources.

IBM is interested in ensuring universities produce technical professionals that graduate with open standards skills and that can succeed against today's IT integration challenges.

**IBM Academic Initiative: Additional Benefits for the Commonwealth of Virginia** – IBM realizes the importance to the Commonwealth of staying current with emerging technologies and becoming recognized as a leader in higher education. To that end, IBM will collaborate and provide resources to support the Commonwealth's vision for learning by not only offering the basics listed in the public program, but by including additional benefits specifically for the Commonwealth of Virginia schools--a unique, customized approach to educational progress that will provide leadership and support to the colleges and universities in the Commonwealth. We propose to work closely with the Commonwealth to develop curriculum and means to accelerate the evolution of education across the state. These customized activities will be scheduled and coordinated with the IBM Infrastructure Project Office and can be started immediately upon contract initiation.

### **Virginia Public Colleges, Universities, and Community Colleges**

|  |                                  |
|--|----------------------------------|
| Christopher Newport University           | College of William and Mary      |
| George Mason University                  | James Madison University         |
| Longwood University                      | Norfolk State University         |
| Old Dominion University                  | Radford University               |
| University of Mary Washington            | University of Virginia           |
| University of Virginia's College at Wise | Virginia Commonwealth University |
| Virginia Military Institute              | Virginia State University        |
| Virginia Tech                            | Richard Bland College            |
| Blue Ridge CC                            | Central Virginia CC              |

|                        |                        |
|------------------------|------------------------|
| Dabney S. Lancaster CC | Danville CC            |
| Eastern Shore CC       | J Sargeant Reynolds CC |
| John Tyler CC          | Lord Fairfax XX        |
| Mountain Empire CC     | New River CC           |
| Northern Virginia CC   | Patrick Henry CC       |
| Paul D Camp CC         | Piedmont Virginia CC   |
| Rappahannock CC        | Southside Virginia CC  |
| Southwest Virginia CC  | Thomas Nelson CC       |
| Tidewater CC           | Virginia Highlands CC  |
| Virginia Western CC    | Wytheville CC          |

IBM will partner with the public colleges and universities in Virginia to supplement the current computer science and information technology curriculums with IBM open source and middleware software, hardware access, training, course material, and support through the IBM Academic Initiative. The goal is to enable faculty to prepare students for the challenging job market and provide students the needed skills to launch a career in the new era of e-business on demand™. The customized approach to educational progress will include:

- IBM's highly skilled teams of IT industry consultants working closely with professors and teaching assistants to provide skills transfer on IBM open standards technologies. IBM may assign a technical team to assess an institution's IT curricula and provide technical training and other support resources for faculty and staff including:
  - No-cost training for faculty on tools, middleware and technology
  - Consultative assistance with the development of course content
  - Hands-on labs, technical briefings, guest lectures and web events
- Building a network of **IBM University Ambassadors** to provide leadership and support to the colleges and universities in the Commonwealth. There are currently over 1,000 volunteer IBM University Ambassadors. The majority are highly skilled, extremely technical professionals who have a passion for improving education. Many of them are adjunct faculty or active in curriculum reform. These Ambassadors can assist in such areas as:
  - Technology consultation and training for individual faculty implementing new technologies in their courses
  - Guest lectures
  - Career guidance for students
  - Resume reviews and interviewing techniques
  - Partnering with student groups (e.g., ACM, AWC, SHPE, NSBE)



- Supplementing existing computer science and information technology curriculum for the colleges and universities in the Commonwealth. Several Virginia schools already have an existing relationship with IBM. For example, over 20 IBM University Ambassadors already support Virginia Tech on an ongoing basis.
- Offering free onsite training and consulting services for groups of faculty members who participate in the no-charge IBM Academic Initiative. IBM technical resources will be made available to faculty to provide technology enablement services such as faculty training, curriculum development, guest lectures and technical workshops.

These additional selections, offered through the IBM Academic Initiative specifically for the Commonwealth of Virginia, offers both faculty and students an outstanding opportunity through its dynamic offerings and vast array of resources. From potential partnerships with IBM customers and Business Partners to an increase in student placements, together we can build tomorrow's business and technology leaders.

Using the **Redacted** as an example, the faculty is already eligible to participate in the public IBM Academic Initiative program. However, immediately on contract initiation, customized activities could begin. The IBM Academic Initiative customized for **Redacted** would offer the following benefits to the faculty and students at **Redacted**:

- A "Curriculum Workshop" to determine the priority of how IBM can help supplement the existing computer science curriculum. For example, an analysis of the current curriculum listed on the university's website could lead to these joint activities:
  - The Department of Business and Economics at **Redacted** offers two courses in Business Administration entitled BUAD111 – Introduction to Business Computing I and BUAD211 – Introduction to Business Computer II. These courses could benefit from guest lecturers in business communications and the use of spreadsheet/database analysis at IBM.
  - The course BUAD312 – Business Information Systems could benefit from guest lectures on project management, business case analysis, and other IT decision-making skills
  - For the major in Computer Science, IBM could supplement the current courses:

|  |   |
|--|---|
| COSC 101:<br>Object Oriented Programming         | Add object-oriented tools developed for IBM's Extreme Blue program, such as Code Rally or Code Ruler, designed to introduce the concepts of object-oriented programming |
| COSC 110:<br>Computer Literacy                   | Invite IBM University Ambassadors as expert guest speakers  |
| COSC 190:<br>Foundations of Computer Programming | Implement IBM's semester long "Java with Eclipse" course offering as well as Rational Application Developer   |
| COSC 270:<br>Programming in COBOL                | Consult with IBM's iSeries and zSeries experts to add "large systems thinking" and "RPG Fundamentals;" there are acute job shortages in this area.                      |
| COSC 320:<br>C and C++ Programming               | Supplement with Java and Eclipse using IBM curriculum   |
| COSC 325:<br>UNIX Systems                        | Add IBM Linux offerings   |

|  |   |
|--|---|
| COSC 330:<br>Fundamentals of Computer Science          | Invite IBM University Ambassador guest speakers to provide “big picture” view         |
| COSC 350:<br>Computer Systems Analysis and Development | Include IBM University Ambassadors involved in SW development at Raleigh              |
| COSC 410:<br>Database Design and Applications          | Supplement with labs using Derby/Cloudscape, Informix, and DB2 to increase job skills |
| COSC 435:<br>Computer Networks                         | Introduce world-class Tivoli offerings  |
| Software Engineering and Methodology                   | Use the Rational modeling tools   |
| Business Intelligence                                  | Implement Data Warehouse and WebSphere tools  |
| Advanced Classes                                       | Consider adding “Services as a Science” Curriculum based on IBM methodology           |

- Other offers to the **Redacted** campus could include:
  - An IBM University Ambassador community to support the faculty with implementation, as well as with student activities such as resumes reviews and career guidance for students.
  - Free access to software and curriculum on existing IBM servers at other universities in the IBM academic “ecosystem.”
  - On-site curriculum/ software workshops for multiple faculty members to familiarize them with new concepts and skills.
  - Guest speakers from “IBM Women in Technology” to answer questions and address concerns of young women considering careers in computer technology.

**Other IBM / University related programs** – IBM offers a number of additional competitive opportunities for collaboration with universities. These include among others **Faculty Awards** (for the continuation of faculty research in areas of interest to IBM) and **Shared University Research (SUR) Grants** (for the provisioning of specific computer hardware to support faculty efforts). IBM will work with the Commonwealth to select appropriate institutes of higher education to explore appropriate opportunities for collaboration.

### 11.1.3.4 Revenue Generation: The VITA “Go To Market” Strategy

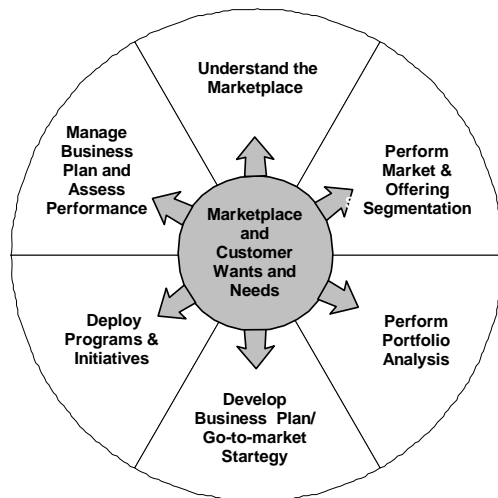
#### Introduction

The Commonwealth Partners also look forward to discussing an innovative approach, which we believe can yield positive results for both of our organizations. We propose to work with the Commonwealth, in a documented partnership relationship, to deliver services to other government entities within Virginia. This could include a mutual commitment of resource, dedicated to understanding and providing solutions to entities outside of VITA. We would identify a revenue target across the life of the contract and in the

spirit of our commitment, we would be willing to agree to a penalty that would be up to 5% of the agreed upon target if the results are not achieved.

This proposed program addresses the opportunity for VITA and IBM to collaborate in the extension of the capabilities presented elsewhere in the proposal to be offered to customers not currently supported by VITA. This section is organized as follows:

1. Go-to-Market Approach
2. Definition of challenges and potential solutions
3. Proposed Next Steps



#### **Go-to-market approach:**

Moving to a state wide shared-services model requires a comprehensive “go-to-market” approach that aligns tightly with the Commonwealth’s information technology and organizational strategies. IBM will leverage its core competencies and industry best practices to provide a “go-to-market approach” and will partner with VITA in deploying the aforementioned transformation initiatives.

The proposed “go-to-market” approach can be divided into six sub-sections:

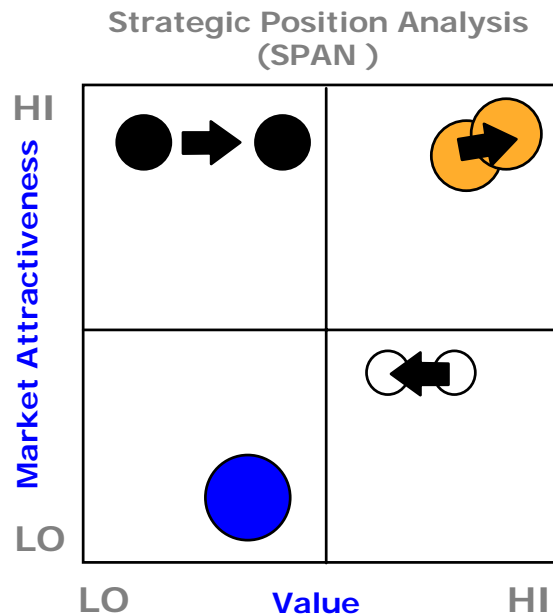
**1. Understand the Marketplace:** Analyze the *current and projected future* demographic details of the 95 counties, 39 independent cities, Virginia wide Municipalities and Government entities. Develop detailed understanding of the population including age, sex, race, socio-economic details,

and education levels. Understand the presence of private sector, agriculture, healthcare providers, and educational institutions. Assess technology infrastructure, application, and service level needs. Analysis performed under this section will adequately shape the requirements for the shared services model.

**2. Perform Market & Offering Segmentation:** Using the analysis above, develop a view of market & required service offering segments by further analyzing who are the buyers? What are they buying? and Why are they buying? Various types of organizations require and respond quite differently to various implementations and pricing of services. For example, smaller municipalities may prefer a different set of services at a different price than their county or Commonwealth agency counterparts. The process of grouping candidate organizations based on similar needs is called Market Segmentation. This is the essential first step toward a successful collaboration between VITA and IBM since it shapes the choices we would make together in every subsequent step described in this section.

We will also use this grouping approach to segment the shared services offerings. In addition to the currently proposed infrastructure solutions being proposed by the Commonwealth Partners, our market research and private due diligence to date has revealed the opportunity to market Application Outsourcing Services, End User Training, IT Consulting offerings such as Infrastructure Optimization and Capacity Planning, and Organizational Transformation Consulting.

**3. Perform Portfolio Analysis:** The Portfolio Analysis effort will help VITA prioritize the market segments and the services offerings. A wide range of criteria will be considered in performing the

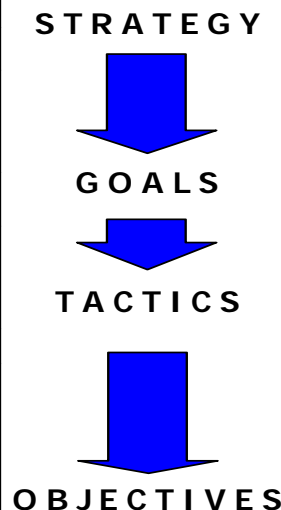


portfolio analysis and prioritizing the segments. These include “market attractiveness” criteria including revenue potential, cost of deployment, feasibility for deployment; and “Value” criteria including value to agency, value to citizens, value to private sector etc.

This prioritization is essential for establishing a phased deployment of revenue generating services offerings, service levels, and pricing schedules. In addition, a phased approach will help VITA and the target State, County, and Municipal agencies to adequately plan and implement the necessary cultural change and transitional activities.

**4. Develop Business Plan/Go-to-Market Strategy:** This section of the approach focuses on documenting the shared services “business plan” and “executable go-to-market strategy”.

| BUSINESS PLAN FRAMEWORK   |  |
|---|--|
| <b>I. Market Place Understanding/Insight</b>  |  |
| Environment<br>Demographic Analysis<br>Infrasturcture & Application Dynamics<br>Customers             |  |
| <b>II. Portfolio Analysis &amp; Overall Strategy</b>  |  |
| Portfolio Analysis<br>Vision, Goals, Objectives<br>Target Selection<br>Overall Strategy and Rationale |  |
| <b>III. Business Plan Elements</b>  |  |
| A. Core Elements<br>Offering<br>Pricing/Terms<br>Distribution<br>Integrated Marketing Communications  |  |
| B. Operational Elements<br>Support/Skilled Resources<br>Fulfillment                                   |  |
| <b>IV. Performance Assessment</b>   |  |
| <b>V. Risk Assessment</b>   |  |
| Overall Risk Assessment<br>Critical Success Factors   |  |



It focuses on answering key questions like, “can optimal results be achieved with a single shared services design or is a portfolio needed?”, “what high-value opportunities are we targeting with what unique & differentiated value propositions?”, “what scope of activities and assets are required?”, “how will I build sustainability into my shared services business design?” etc.

The Business Plan document contains:

1. the go-to-market strategy that details the in depth analysis of the target marketplace, target segments, value propositions, strategies & actions, performance goals, risk assessment, resource and cost perspective,
2. documentation of service offering requirements, staffing, fees, pricing schedules, terms and conditions,
3. documentation of methods and tools required to transition new clients from their current service to the new service, and
4. marketing programs, shared service initiatives, communication requirements, and calendar of activities required to fully implement the shared services model.

**5. Deploy Marketing Programs & Shared Service Initiatives:** Deploy specific marketing programs that communicate the availability of shared services, schedules, and value delivered by this initiative.

Engage with selected constituencies to pilot the approach and deploy the shared services model. This would involve development of standard common business rules with sufficient flexibility to accommodate the needs of target, pilot constituencies. This would also involve establishment of proposals, contracting procedures, and Service Level Agreements (SLAs). The SLAs are negotiated agreements between the shared services provider and the target pilot constituencies. The SLAs set expectations of levels of service between the shared services provider and its customers. Typically these SLAs are comprised of specific products/services delivered, levels of service, expected demand, capacity planning, performance metrics, chargeback mechanism, and issue resolution procedures.

This would also involve client education and training, support planning, delivery, invoicing and payment collection procedures.

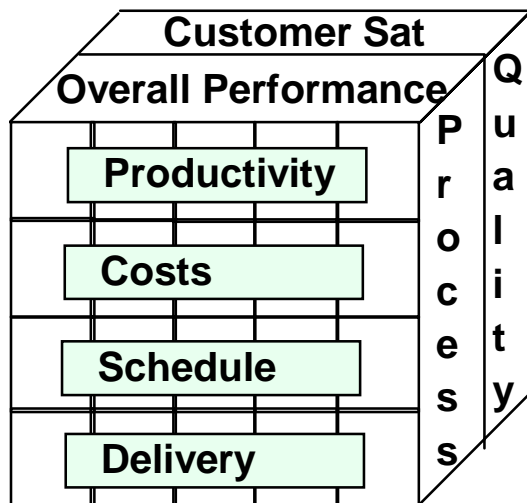
**6. Manage Business Plan and Assess Performance:** This step of the process involves ensuring effective and efficient ways to implement the shared services business plan and assessing performance against the plan. This section involves detailed commitments required to be presented for the period of the current year, plus the 3 year planning window. These metrics include performance in the market, operations &

key milestones, planned investments plus forecasts by target geographic segments including counties, municipalities etc.

The shared services provider needs to consider utilizing a consistent set of metrics designed to programmatically gauge quality of services, customer satisfaction, costs, productivity, process dynamics, speed of execution, and overall performance.

Managing the shared services business plan would also require an understanding of risks and critical success factors.

A risk assessment needs to be conducted to address any market (target segment), technical or financial risks. Plans must be in place to address major uncertainties, contingencies, and the risk associated with each element of the implementation.



### **Definition of the challenges and potential solutions:**

The process of arranging a collaborative relationship between VITA and the Commonwealth Partners to extend service delivery beyond the initial VITA supported agencies will involve a division of responsibilities for the tasks described above between VITA and the Commonwealth Partners. In most arrangements of this sort, the division of responsibilities and associated risks also guide the division of benefits and profits generated through the collaboration. There are many variations on the division of responsibilities that involve various amounts of responsibility being assumed by VITA or the Commonwealth Partners. The most fundamental decision involves determination of which organization will lead the contracting process and will assume primary responsibility for the relationship with organizations that purchase the services. IBM has experience with approaches where the offerings are contracted and branded by IBM or branded by the partner (such as VITA.)

### **Proposed Next Steps:**

We believe that the best approach forward is to conduct joint planning with VITA, review findings from our own market research/due diligence and collaborate on the details of this proposal.

### **11.1.3.5 Technology for the Future: Voice Recognition Application Solutions Proof-of-Concept**

To demonstrate to the Commonwealth IBM's commitment to this opportunity, and to further differentiate the IBM proposal by solidifying our position as a technology leader, we are including an innovative solution that we'd like to use as a proof-of-concept. This "First of its Kind" solution is only available from IBM and will provide the Commonwealth added business benefit above and beyond your current Voice and Video operations.

Specifically, IBM Research has developed voice recognition technologies and enveloped unique applications around them which will enable the Commonwealth to both capture and caption the audio from Board Meeting presentations, classroom training, webcasts, and streaming video for other important events (e.g., Information Technology Investment Board Meetings, Governor's speeches, etc). Among many other unique business advantages and applications, this solution will provide the Commonwealth a very powerful knowledge transfer capability and extend the reach and their experience to your constituents, whether they are employees or citizens.

For example, imagine having the capability to have a presenter's actual spoken words available in the written word on demand from your website along with the synchronized presentation material, the audio and video if you missed the meeting, or would simply like to review the presentation. This is in contrast to a current state of an unlikely event that someone took good notes from what is typically a cryptic MS PowerPoint presentation.

### **Voice Recognition Application Solutions – Proof-of-Concept**

To improve current Voice and Video operations, we are including the capabilities of IBM's Access Suite ViaScribe and Caption Me Now Voice Recognition Application Solutions to provide this unique, innovative capability to the Commonwealth. We are proposing a proof-of-concept to be performed for three (3) consecutive ITIB Board Meetings, for approximately 1 hour each, to begin at the first Board meeting after contract signature.

We have included this unique solution to demonstrate to the Commonwealth IBM's clear innovative capabilities that sets us apart from the competition, which will in turn, provide VITA additional business benefit and differentiation from other state agencies.



### ***Access Suite ViaScribe and Caption Me Now Voice Recognition Application Solutions***

This solution supplements the Commonwealth IT Infrastructure requirements for the Voice and Video Telecom Services (Appendix 9 to Schedule 3.3) requirements as follows:

- Provide capabilities for webcasting and streaming video for important events (e.g., Governor's speeches)
- Integrate audio conferencing into video conference meetings upon request

Webcasting and streaming video have become increasingly pervasive, as bandwidth availability has increased and face-to-face travel and meeting opportunities diminish. Webcasts have become a common vehicle to communicate messages, news and even education in ways that are informative, entertaining, and more cost-effective than travel.

This captioning or transcribing board meetings and webcasts is an important feature that can enhance the productivity of all employees and citizenry, while also enabling individuals who are deaf or hard of hearing. As the population ages, many more citizens and employees are seniors and many of them can benefit from the addition of captions to the audio or video signal. Non-native English speakers can also find value in supplementing the audio signal with the written word, to reinforce what they are hearing.

Lastly, transcribed board meetings and webcasts present other advantages to everyone. When information is transcribed, it can more easily be archived and searched because the actual text is available. Users that want to listen to webcasts on a particular topic can more easily identify the topics of interest, resulting in a more efficient listening experience.

Standard methods to create captions, however, can be cost prohibitive - an estimated \$500 to \$1000 per finished hour. IBM has created speech recognition technologies that can reduce these costs, dramatically. The recommended technology to address these challenges is IBM ViaScribe, and the end-to-end solutions are outlined below:

- When government employees create webcasts, they can use the ViaScribe tool to more efficiently and cost-effectively generate an accessible, multimedia presentation. The ViaScribe tool creates captions of the speaker. In addition, ViaScribe "binds" the video, slides, audio, and text automatically into an attractive multimedia webcasts, available in multiple formats.
- For webcasts that already reside on the Intranet, IBM provides the CaptionMeNow tool to enable employees or citizens to easily request that the audio or video content be captioned. By selecting a "CaptionMeNow" button, the uncaptioned audio is processed through the ViaScribe tool, and any speech recognition errors are then corrected by human editors. The "on demand" nature of this solution reduces costs, since the Commonwealth will not have to caption all of their existing audio and video; they can caption only as needed and requested. The resulting captioned multimedia file is also created at considerably lower cost than other currently available methods.

### ***From Proof-of-Concept to Tangible Benefit***

The first step in introducing this new technology is to provide a proof-of-concept to demonstrate its usability. As stated above, we propose to use this technology at three (3) consecutive ITIB meetings. We can demonstrate the Caption Me Now application by using both the audio tapes of the ITIB meeting and the PowerPoint presentations from previously held meetings. ViaScribe will be demonstrated at a "live" meeting.

If VITA finds this Voice and Video technology beneficial, the applications can be used as the first "services" offered by the Business Development unit. Together, VITA and IBM can market either or both of these services to agencies with the need to record presentations for wide distribution (archive important meeting with the State Library, develop application call center scripts, complement current training

methods for agents in the field for agencies such as Social Services and Revenue, and capture class room presentations at colleges and universities).

### ***Summary***

The Infrastructure PPEA approach provides VITA and IBM with the opportunity to take our existing business relationship to new levels and the proposed value add elements described here will add further dimensions to this. IBM believes that our approach will enable VITA to take advantage of the best of technological advances, link them to business practice, and build a platform to which others will aspire.

Operational processes and systems management is core to IBM's business and we are making substantial investments in the creation and deployment of new hardware, software, and services capabilities in this area. These investments will make it possible for VITA to visualize, automate, and optimize the management of their IT environments and their impact on the Commonwealth's business. One factor that remains constant is our decades of experience in designing, building, and deploying operational processes for IT systems. This operational experience is integral to all aspects of our proposed solution.